DWR
CCTAG
Working Meeting

January 16, 2015

California Department of Water Resources
Climate Change Technical Advisory Working Meeting
January 16, 2015
9:30 am-12:00 pm
DWR Creekside Conf Room, 2nd floor, Bonderson
https://resources.webex.com/resources/j.php?J=744698304

Provide your phone number when you join the meeting to receive a call back. Alternatively, you can call:
Call-in toll-free number (Verizon): 1-877-923-1522 (US)
Host access code: 679 474 0
Attendee access code: 295 056 7

AGENDA:

Chapter 1: (AS)
- California Climate Summary

Chapter 2: (Dan C)

Chapter 3: (MA)
- No Name Oscillation caution (MA)

Chapter 4: (MD)
- Altitude discrepancy

Chapter 5: DWR Applications (SY)
- **5 projects (AS)**
- **Additional Guidance DWR would like (Chapter 5?)**
  - Emissions scenarios (RCP) recommendations (AS)
  - Decision Scaling Approach (AS)

Chapter 6: Guidance (AH)

Executive Summary (Dave C)

Call-in Meeting, 9:30-12, Friday, February 20th

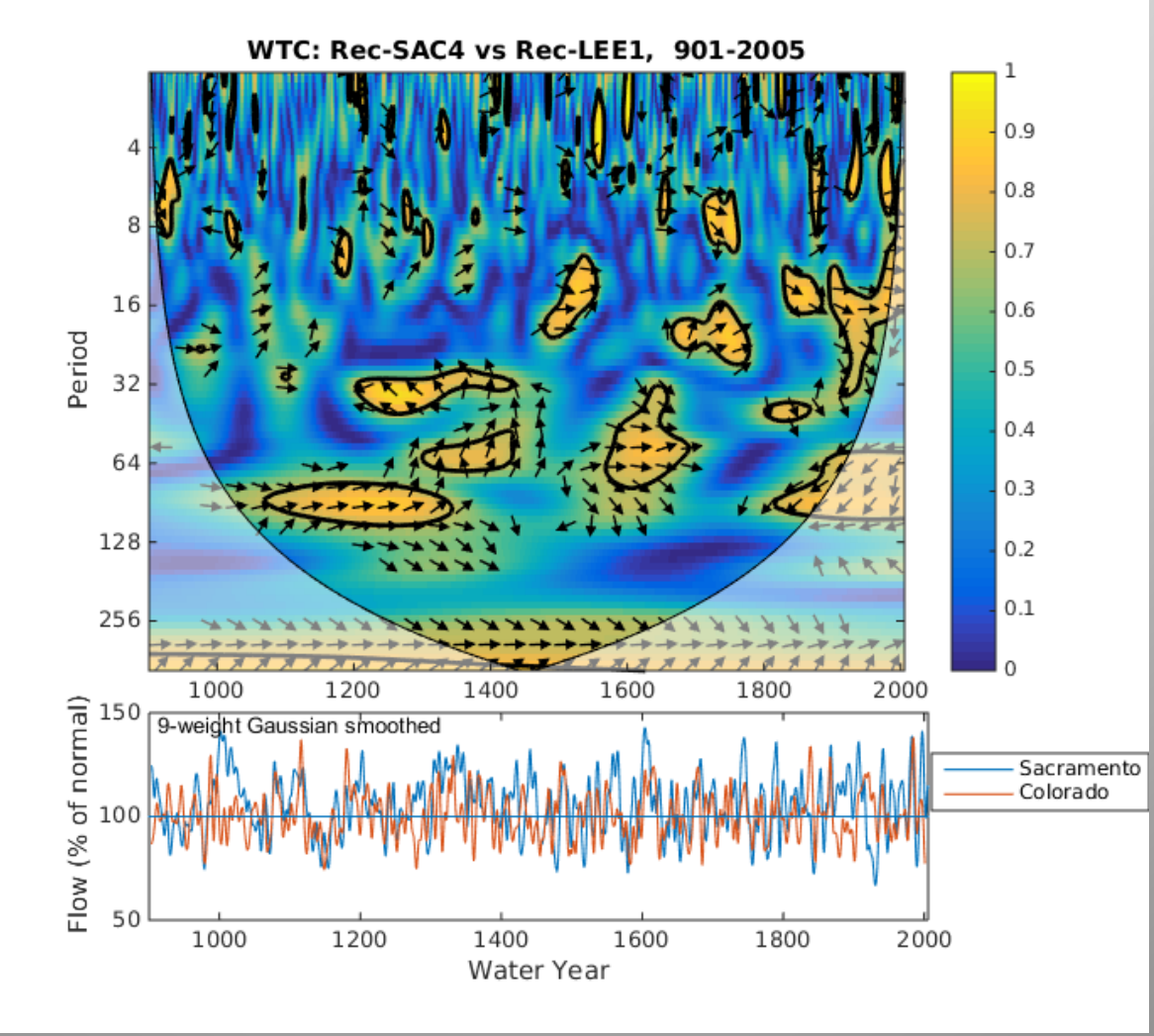
CCTAG in-person meeting; March, 2015 (doodle coming)

California Climate Summary

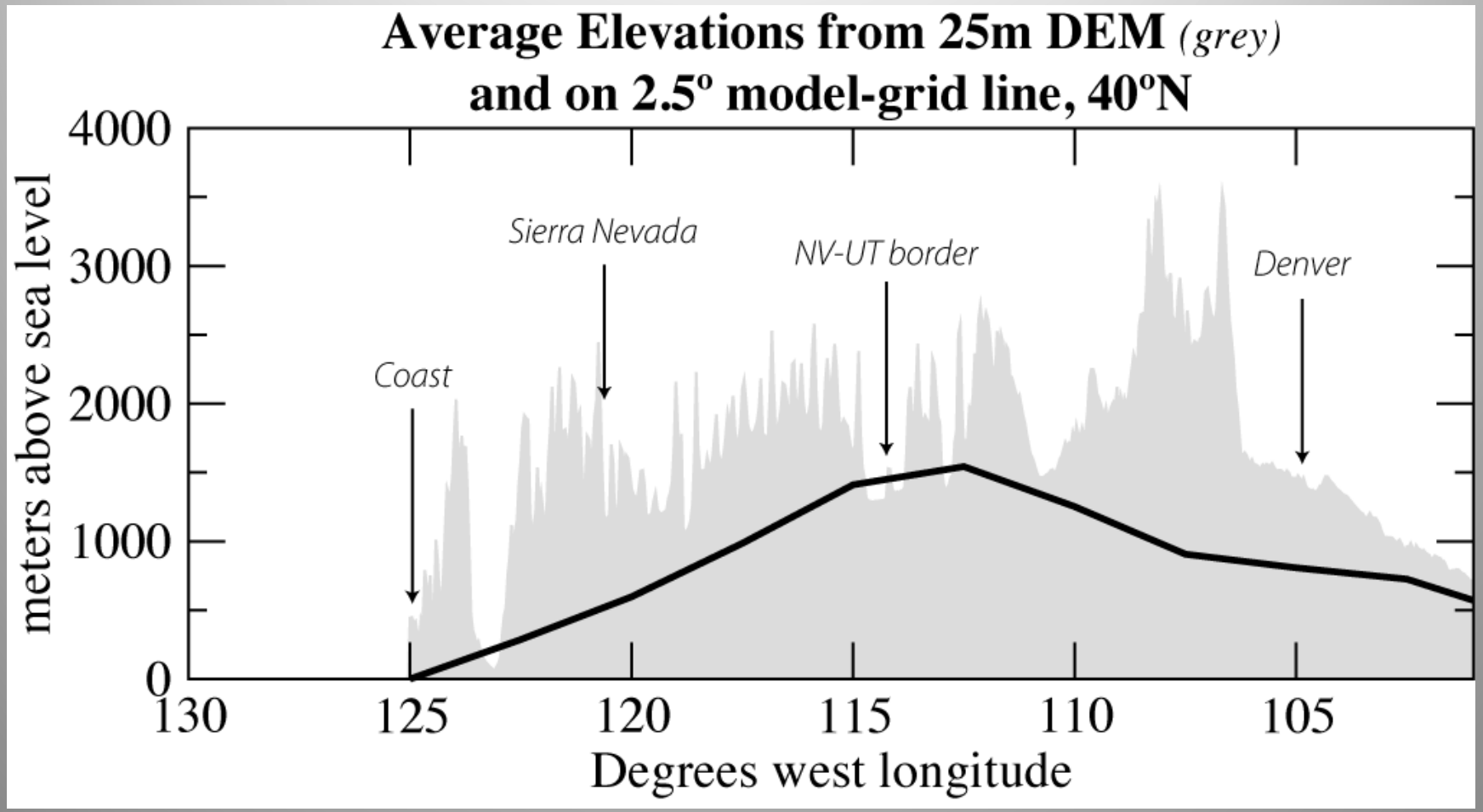
Home to more than 38 million people, California's uniquely variable climate is both attraction and challenge to life in the state. Spanning nearly 10 degrees latitude and 10 degrees longitude, California stretches from the hot dry desert in the southeast corner to a mild wet clime in the northwest corner with mountain ranges, alpine meadows, coastal plains and a broad central valley in between. Within its 158,693 square mile domain, one finds the lowest elevation in the continental US at 276 feet below sea level in Death Valley and the highest in Mt. Whitney at 14,505 feet.

Two major mountain features, the Coast Range and the Sierra Nevada dramatically shape California's rainfall patterns. The Coastal Range from the Oregon border to Los Angeles parallels the coast with crests generally no more than 50 miles inland. Approximately 150 miles east, beyond the Great Central Valley, lurks the Sierra Nevada Range also paralleling the coastline but includes a dozen peaks above 14,000 feet. Steep west facing slopes help squeeze precipitation from moisture-laden storms arriving from a long journey across the Pacific Ocean.

Addition Chapter 3 Guidance: No Name Oscillation



Addition to Chapter 4 Guidance: GCM Topography



Chapter 5. DWR Applications Guidance

Study No. 1 California Water Plan	Statewide general water plan, high level, broad, not directly connected to any specific decision. Designed to inform the legislature, the public, and local/regional water planning and management agencies on the strategic direction of statewide water management.	Most General
Study No. 2 and 3 State Water Project and Central Valley Project Climate Change Impact Reports (2006 and 2009)	Climate change specific analysis of SWP and CVP performance under scenarios of climate change. This study is not connected to any specific decision. Designed to explore potential impacts and lose of SWP/CVP performance as a result of climate change and to inform DWR management, the legislature, and the public about such possibilities.	
Study No. 4 State Water Project Delivery Reliability Report	Biannual report generated by DWR to provide information about the expected future reliability of State Water Project deliveries. This report projects out 20 years into the future and provides information that is used by State Water Contractors. This report provides fairly specific information given assumptions about future conditions. State Water Contractors may use this information to inform their decision making about their future water supplies and projects.	
Study No. 5 Status Report On Preliminary Operations Simulations	General planning study to investigate the efficacy of various potential approaches to water management challenges. This study was used to inform DWR and Governor's office decision makers about what types of future projects or programs would be most likely to improve water supply reliability in the face of various challenges including climate change. This study can be closely linked to strategic direction, funding and other executive decisions.	
Study No. 10 Bay Delta Conservation Plan	This Plan documents the analysis done to investigate the efficacy and negative impacts of a potential infrastructure project. Climate change analysis is just one of many areas of analysis. The Plan provides very specific details about current and future conditions and very specific details about the specific project being proposed. The analysis in this Plan can be directly linked to decision making about whether the project goes forward or does not.	Most Specific/Detailed

Type 1: General Planning Studies

- Very General (Policy level, strategic direction)
- Long-time horizon (30-100 years)
- Large spatial coverage (statewide/Central Valley water systems)
- Not specific to climate change or climate change impacts
- Ability to explore multiple projections may vary

High level, broad, ***not directly connected to any specific decision***. Designed to inform the legislature, the public, and/or local/regional water planning and management agencies on the strategic direction of statewide water management.

Example: California Water Plan (Updated every 5 years)

Type 2: Climate Change Specific General Planning Studies

- Very General (Policy level, strategic direction)
- Long-time horizon (30-100 years)
- Large spatial coverage (statewide/Central Valley water systems)
- Specifically designed to estimate or disclose climate change impacts
- Broad ability to explore multiple climate projections

High level, broad, ***not directly connected to any specific decision***. Designed to explore potential impacts of climate change and inform the legislature, the public, and/or local/regional water planning and management agencies about climate change risks.

Example: 2006 and 2009 State Water Project and Central Valley Project Climate Change Impact Reports

Type 3: Specific Operations Reports

- Very specific to operations (disclosure, informative)
- Mid range time horizon (20-40 years)
- Large spatial coverage (State Water Project Service Area)
- Specifically designed to estimate or disclose performance of SWP and project future reliability
- Ability to explore multiple climate projections historically limited

Planning level, ***used by local and regional water users***. Designed to inform SWP contractors about the reliability of their SWP allocations.

Example: State Water Project Delivery Reliability Reports (Updated biannually)

Type 4: Operations Investigation Reports

- Investigations into potential operational changes or new infrastructure investments (investigative, may result in policy changes or new directions)
- Mid to long range time horizon (20-80 years)
- Large spatial coverage (Statewide or SWP Service Area)
- Specifically designed to test future vulnerabilities and potential strategies to improve future reliability
- Ability to explore multiple climate projections may vary

Planning level, ***used by DWR/Leg./GO to investigate the efficacy of various potential approaches to water management challenges.*** *Closely linked to strategic direction, funding and other executive decisions.*

Example: Status Report On Preliminary Operations Simulations

Type 5: Specific Project Analyses

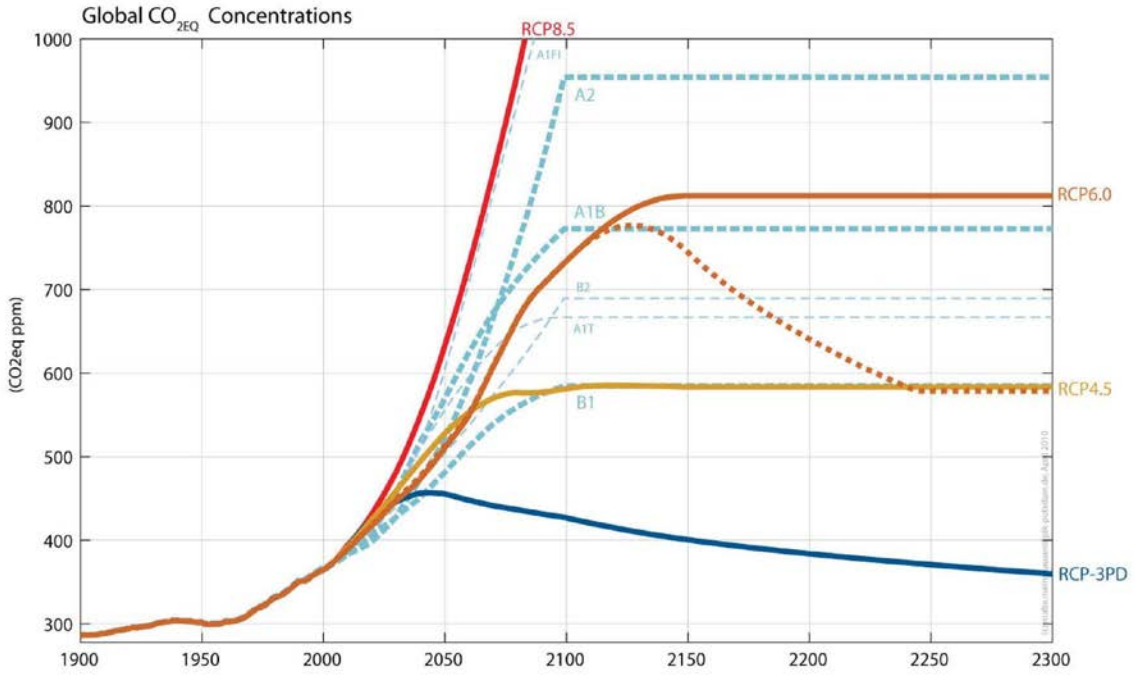
- CEQA, NEPA, FERC Relicensing, Feasibility Assessment of specific proposed projects
- Mid range time horizon (20-60 years)
- Spatial coverage varies from localized to very large
- Directly related to decision making
- Ability to explore multiple climate projections is **very limited**
- **Climate Change is one of many areas of very specific analysis**

Implementation level, ***used by DWR to explore and disclose potential impacts and benefits of specific proposed projects.***

Example: Bay Delta Conservation Plan

Addition Chapter 5 Guidance: *Emissions Scenarios*

CO_2-eq Concentrations for the RCPs



From Malte Meinshausen

ipcc INTERGOVERNMENTAL PANEL ON climate change

WMO UNEP

THANK YOU!

Next group call:

February 20th

Next Full CCTAG *March (TBD - doodle)*